AMERICAN BEE JOURNAL

GEORGE W. YORK,
Editor.

CHICAGO, ILL., MARCH 7, 1901.

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No. 10.

WEEKLY

Roof-Apiary of Mr. G. E. Purple.
(See page 148.)

THE AMERICAN BEE JOURNAL

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National Bee-Keepers' Association

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To promote and protect the interests of its members.

To prevent the adulteration of honey.

To prosecute dishonest honey commissionmen.

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AMERICAN BEE JOURNAL

THE OLDEST BEE-PAPER IN AMERICA

41st YEAR. CHICAGO, ILL., MARCH 7, 1901. No. 10.

Editorial.

The National Convention Report is omitted this week on account of more copy not being received in time from the secretary. We regret this second break in the long "continued story," as we desire to complete it as soon as possible.

A Glucose Test.—Editor E. R. Root said at the Wisconsin convention that adding an equal amount of wood-alcohol to honey, stirring well, and then letting it stand say ten minutes, is a good test for glucose in honey. If adulterated the compound would show a milky appearance, and remain clear if pure. This is a simple test, but we presume the wood-alcohol must be absolutely pure itself to start with.

Bee-Keeping at the Pan-American.—At the last Ontario County (N. Y.) Bee-Keepers' convention, Mr. O. L. Hershiser, superintendent of the apiarian exhibit at the Pan-American Exposition, said that it was proposed to have a commodious building for the accommodation of bee-keepers; that bees alive were to be exhibited in regular yards as kept in different lands; and also that there would be shown articles from bakeries in which honey is used as an ingredient. The New York bee-keepers will be allowed to exhibit at least 5,000 pounds of honey, about equally divided between comb and extracted. The extracted is wanted in bulk, the State to furnish the packages in which it is to be exhibited. The State will also furnish the cases for the comb honey. All bee-keepers in New York, who have any honey suitable for exhibition, should address Mr. Hershiser. He will buy the honey outright, which, however, he will not do until next season, when the new crop comes in. No exhibitor will have to pay any freight charges. On request the honey will be returned to the exhibitor, or such disposition made of it as he may desire. Mr. F. Greiner furnishes this information for the American Bee-Keeper.

Big Yields of Honey.—The Twentieth Century Farmer has been telling a whopper on the 19th century bee-keeping. Here is what it publisht recently:

CYPRIANS HOLD WORLD'S RECORD.

The next breed of bees imported came from the island of Cyprus. They are called Cyprians, a name not always used for bees. The Cyprians hold the world's record for the amount of honey gathered by one colony in a single season. Mr. Doolittle, of New York State, a well known apiarist, took 1,000 pounds of extracted honey from one colony of Cyprian bees one year. They have one serious fault—they are very nervous, and will defend their stores of honey to the death. They can not be subdued by smoke. When aroused the only way to conquer them is with a mild dose of chloroform. On account of their disposition they have not become popular.

Upon receipt of the Farmer containing the above paragraph, we clipt it out and sent it to Mr. Doolittle, to show him what was being credited to him. And here is what Mr. D. says about it:

The above reminds me of the "man who puked up three black crows," of ancient time, while the truth was that "he threw up something as black as a crow, and told his neighbor so."

My greatest yield of extracted honey from a single colony of bees was in 1877, when one colony gave me the large yield of 566 pounds, besides producing enough to winter on—or about 35 pounds more. So that the total gathered by this colony was not far from 600 pounds, all told; that is, above what they consumed while gathering, or during the summer months. But this was before any Cyprian bees were imported into this country, the bees doing the gathering of this 600 pounds being those best of all bees, *all things considered*—the Italians.

But this record of 566 pounds has been outdone several times. E. Gallup, while in Iowa, went considerably above 600, and P. H. Elwood, of this State, produced 640 pounds from one colony, if I am correct; while a Texas bee-keeper obtained 1,000 pounds, or a little over, from a single colony in the spring and its increase. This latter I have spoken of in print several times, always crediting the matter to the State of Texas. It would now appear that it has grown, like the crow story, till *I* myself produced the 1,000-pound yield, and did it with Cyprian bees. But the Cyprian part is wholly "manufactured," for, if I am right, this 1,000-pound yield was produced before any Cyprian bees ever came to this country. G. M. DOOLITTLE.

Onondaga Co., N. Y., Feb. 20.

That "Utter"-ly Glorious Victory won down in New York State last December grows more glorious all the time. Editor Root, in Gleanings in Bee-Culture, has a paragraphic editorial with this quoted heading, "But 'Twas a Glorious Victory." Then right under it he gives the following from Josh Billings:

"Sum people that go to law for dammiges sumtimes get more than tha want."

After that comes this paragraph referring to the final settlement of the Utter vs. Utter suit:

Just as this form is going to press I have received information that the plaintiff, or, as he is called, Fruitman Utter, has decided not to carry his case to a higher court, and he has settled by paying all the costs, which can hardly be less than $500 or $600. Thanks to the National Bee-Keepers' Association, the defense was so strong that the other side knew there was absolutely no show for them. We met the enemy, and whipt him so hard that he knew there would be nothing left of him if he attempted to put up another fight. 'Tis well. Hip, hip, hurrah for the Association! Such a victory ought to appeal to every one of our subscribers who is not a member. Send in a dollar to General Manager Secor, Forest City, Iowa, and have a hand in this glorious work. There are more battles to fight, and we need your help, and—*you may need ours.*

Yes, Manager Secor ought to be kept busy now taking in the membership dollars. Surely, every bee-keeper should desire to belong to an organization that does such effective work.

If it is more convenient for the readers of the American Bee Journal to send their membership dues to this office, we will be glad to receive them and forward to Mr. Secor. We would like to see every one of our subscribers get into the National Bee-Keepers' Association. You can't help in a better way for the uplifting and defense of bee-culture.

The Production of Comb Honey.—Mr. F. Greiner reports in the American Bee-Keeper some notes from the Ontario County (N. Y.) Bee-Keepers' convention held last Dec. 13th and 14th. Referring to an address by W. Z. Hutchinson, he gives the following important point:

As soon as it is advisable to put on the honey-boxes or supers, give a super full of drawn comb. This will keep the honey out of the brood-chamber, and start the bees right. Empty sections, or such filled with foundation, do not fill the bill here. When the bees once get in the habit of storing their honey above, they are apt to continue thus thruout the season; when they form a habit of filling the brood-chamber with honey at the beginning of the season, they then are slow to enter the sections any time after. Mr. Hutchinson had observed that by giving supers full of drawn comb a case of honey was gained above what other equally as good colonies had made supplied with empty sections.

The swarms are treated according to the Heddon plan. Mr. Hutchinson had done a good deal of experimenting with swarms, hiving them alternately on combs, foundation, and starters. The combs always gave the poorest results with him, and the foundation, aside from insuring perfect combs, proved a total loss. No young swarm is allowed more than five Langstroth frames, or one section of the Heddon hive. Contraction is practiced only on the swarms.

He has come to the conclusion that it is not always profitable to supply the bees with foundation. During a good flow he claims wax is produced anyhow, and if there is no opportunity to use it somewhere a large portion of it is lost. And, after all, he expresst his opinion that good, straight worker-combs were not too dear at the expense of the foundation.

A Looking-Glass placed before the hive-entrance is advised in the Leipziger Bienenzeitung, to scare away robber-bees. Perhaps it is thought that if the robbers could "see themselves as others see them," they'd "quit their meanness."

Contributed Articles.

A Successful Roof-Apiary in Chicago.

BY G. E. PURPLE.

TO relate my experience in keeping bees in the city, and how the idea occurred to me to keep them on the roof, I will have to go back a few years.

Like a great many others, my boyhood days were spent on a farm. When a boy 16 years old my father took some bees to keep on shares. It was not long before an interest in the little creatures was aroused in me, and I became quite a student of their ways, studying them as best I could while using a box-hive. After keeping them about two years in box-hives, having the usual failures one has when he works with them blind (one may say), I secured a copy of the "A B C of Bee-Culture." I began reading it and could not bear to drop it until I had read and reread it all thru, and from that day to the present time my enthusiasm has not abated. Not being blest with an over-abundance of this world's wealth, I made hives and frames, so by the next season I had all the bees in movable-frame hives. I had six or eight colonies at the time.

Let me say here that before this we had returned to the original owner his share of the bees, so all we had then were our own.

The next two seasons were very favorable ones, and by the end of the second we had 30 or more colonies and succeeded in getting over 2,000 pounds of honey from 20 colonies, spring count—an unheard of amount in that country (northwestern Missouri).

The next three or four years were either entire failures or only a very little surplus. Having a very good position offered me in Minneapolis, I concluded to accept it, and leave the farm and bees to father's care. Father all this time had left the care of the bees entirely to me, and when the responsibility fell to him he was little prepared for it, and, as a consequence, the bees were more or less neglected, and gradually dwindled.

During my stay in Minneapolis I made the acquaintance of persons who kept bees, and we spent many an hour talking over our experiences, and enjoying ourselves as only enthusiasts can.

Owing to the financial disturbances of 1893, I found it necessary to change my residence from Minneapolis to Chicago, and have lived here since. While riding home from work one evening I saw a man sitting opposite me in the car reading the "old reliable" American Bee Journal. Of course I knew he was a bee-keeper, and knowing all bee-keepers are jolly good fellows, I ventured to speak to him, and he proved to be our friend Mr. Mead. I afterwards called on him, and we together examined his bees. I learned they did not disturb his neighbors, and that there were many nectar-yielding plants in the vicinity. That call revived in me the "bee-fever" again, and I determined to get one or two colonies as soon as I could find a place to keep them.

Soon after that I moved farther out, and while on the roof one day I thought it a capital place to keep bees, and the next spring I sent down home for one colony, and tried it. The colony father sent was not a very good one, so I bought two frames of brood and a queen from Mr. Mead to build them up. They did far better than I expected, producing over 150 pounds of extracted honey (borrowed the extractor) that season. The bees wintered well on the roof, packt in planer-shavings, and the next spring I sent for all there were left on the farm—only four, and one was dead when it reacht me (starved out). So I started with four good, strong colonies. That summer they increast to seven, and I got an average of 150 pounds per colony.

In the fall I moved to the present location, and the following winter (1898-99) was very severe on the bees. The long-continued cold weather prevented their moving to their stores, and one colony died with plenty of honey in the hive. Only two came thru strong, and four were very light. We had a very early spring, and I never before saw bees build up so rapidly, so by the time the honey-flow came on, they were all good and strong. But it was the first season I ever had reason to complain of my luck; I lost queen after queen, both old and young, and only increast to nine colonies, these producing over 900 pounds of honey.

The next winter, not having them fixt properly, I lost two, and doubled others up. I started with five of my own, and bought 10 more, increast to 21, and produced nearly 3200 pounds of extracted honey. The engraving shows the apiary one Saturday afternoon in August, when Editor York called with his photographer, and took our pictures after we had (as an old friend says) "climbed Jacob's ladder to the bee-heaven." (See first page).

When one keeps only a few bees, more for the pleasure than the profit, and does the work connected with them at odd times, he can keep close watch of each individual colony, and get better results in proportion to the numbers than with a large apiary, and they will amply repay him for the small outlay at the start, and for the time spent in taking care of them.

The roof as a place to keep bees has its advantages as well as disadvantages. Things in its favor are that the bees are up out of the way, and there is no fear of their disturbing any one. (I have never heard any complaints against mine). The roof being nearly level, and covered with clean gravel, there is nothing to hinder the bees, and when they swarm it is easy to find the queen. (I clip all my queens.) While the drawbacks are, getting everything up there, as well as getting the honey down to extract and handle, and some days the wind blows so hard that the bees can scarcely get to the hives at all. Many think it quite a novelty, but the novelty has worn off with me, and I derive a great deal of pleasure as well as profit from my bees, tho kept on the roof of a modern flat-building in a big city. Feb. 1, 1901.

[We might add to the foregoing that Mr. Purple's honey source is principally sweet clover. His apiary is located about five miles west of the Lake, and is a very neat one. He reaches the roof thru an opening directly above one end of the porch at the rear of the third flat in which he lives.

Mr. Purple is a very pleasant gentleman to meet, and thoroly understands bee-keeping. He would be successful almost anywhere with bees, provided there was plenty of nectar for them to gather.

We spent a delightful hour at his roof-apiary, and were surprised to see how abundantly the bees had rewarded his efforts during the summer.—EDITOR].

A Review of "A B C of Bee-Culture."

BY PROF. A. J. COOK.

IT has been a pleasure to review "Dadant's Langstroth" and "Cowan's Honey-Bee," as there is so much to commend and so little to criticize in these volumes, each of which is a credit to our nineteenth century bee-culture. They are books which deserve to live and which will live. I come to the pleasant duty of reviewing "A B C of Bee-Culture" with no less of gratification. Without doubt this book has exerted a wider influence upon the bee-keeping world than any others ever written. Even its rivals can only be joyous in its extensive sale, as they know that wherever it goes it goes to help and to bless. I am the more pleased to do this as I have received several letters thanking me for the reviews of the other books. These reviews certainly call attention to mooted questions and will be almost certain to incite criticisms. I shall criticize no point except in such cases as I have good reason to believe that there is an error, but it is quite possible that in some cases I may be in the wrong.

Page 2—Mr. Root says, "Candidly, I don't know any better way to prevent second swarms than to watch carefully when they are to be expected and then chase after them, climb tree, etc., until they are gotten safely into the hive." I believe that the experienced bee-keeper will rarely be troubled with second swarms. One is enough for the best results, and some of the many ways will, and should, be used to prevent the second swarms. I think the way first suggested by Mr. Heddon is certainly the best. The principle of this is in placing the new swarm close beside the parent colony, and the day before the second swarm would be expected remove the old hive to another part of the apiary. Of course, the older bees will go back to the old location, to join and strengthen the swarm, while the old colony will be so thinned out that very rarely a second swarm will

issue. I used this method for years and with no failure, so far as I know.

Page 6—Is not Mr. Root a little too enthusiastic regarding alfalfa honey, when he says "the quality of alfalfa honey is probably superior to anything that the world has ever produced from any other source"? I claim to be something of a judge of honey, and I think alfalfa is no better than clover, linden, sage, and I think I might find even others quite equal to it.

Page 7—In California it does not take three years to get the best yield from alfalfa. In fact, we often get a maximum yield the very first year in the later cuttings. Alfalfa is a wonderful crop. I often say that I think I would rather have a good alfalfa field than an orange-orchard. I have known several cases where seven cuttings have been made in a year, and it is not uncommon to secure two tons per acre from a cutting. In this same connection, Mr. Root hints that there is so much sweet in alfalfa that the bees even gather (sic) from the dry hay. This is putting it altogether too strong. Still I do not think that too much can be said in favor of alfalfa for it is a marvelous crop.

Page 10—Mr. Root says that digestion is the separation of the nutrient part of the food from the non-nutrient, and the conversion of the nutrient into a liquid fit to mingle with the blood and thus nourish the body of the insect. This is given as a question but he was not happy in his selection of authority. Digestion is simply the fitting of the food to be absorbed. I tell my class that "digestion is rendering the food osmotic." Many authors say that digestion is merely to dissolve the food. This is not a good definition. Some of the food that is already dissolved, like blood albumen and cane-sugar, must be digested before it can be absorbed from the stomach into the blood. That is before it is osmotic. Absorption, not digestion, does the work of separation. One other of our bee-books makes this same mistake.

Page 10—In speaking of the urinary tubes appended to the stomach, Mr. Root calls them the "malphygian tubes." It should be "malpighian," as they were named from their discoverer, Malpighi, a distinguisht Italian physiologist and microscopist. Mr. Root says further of these tubes, "It is not certain what their office is, but it is thought that they are the urinary organs." This is no longer true as urea, etc., have been found in these vessels, so we now know that they function as kidneys.

Page 44—In speaking of the advantage of black bees, from the fact that they can be shaken off the comb so easily, Mr. Root says, "For that reason alone some prefer them, or hybrids, to pure Italians, which can hardly be shaken off." I have very little trouble to fell at one shake every Italian bee from the comb if the latter fully fills the frame. This requires a peculiarly sharp jerk which every apiarist should learn to give. He should also learn to keep the frame perfectly vertical else the comb may follow after the bees, which is about as annoying a thing as can happen in the apiary. I should make this characteristic a count against the black bee and in favor of the Italian. As our best men love their homes so well that they always stick to them if possible, so I prefer the bees that endeavor to stick by their comb.

Page 45—Mr. Benton did not spend the best years of his life in the jungles of India, in search of new bees. Mr. Benton was in India only a few days. I think he was only a few days in Ceylon, where he secured Apis dorsata.

Page 47—It is unfortunate that our authors use the term worm and grub as synonymous with larva. I know this is commonly done but it is wrong, and how shall we correct errors unless our authors avoid them? Entomologists confine the term grub to the larva of beetles, while worms are not insects at all. Worms, as instanced in the angleworm, never have any legs at all, and look essentially the same from first to last except for size. All mature insects have legs and are very different from the larva, or insect, just after hatching. Why not always speak of the immature bees as larvæ and be correct?

Page 49—It is here stated that it is supposed that this larval food is pollen and honey, partially digested by the young or nursing bee. I with others have positively proved that this larval food is perfectly digested pollen, with or without the addition of honey. Planta has shown that the drone-larvæ have mixt with this food toward the last a little undigested pollen.

Page 50—In speaking of viper's-bugloss (Echium vulgare), Mr. Root calls it blue thistle, and speaks of the danger of introducing the seed. This belongs to the borage family and is no thistle at all. This name should never be used. It is like borage in being no serious pest.

Page 98—Are the drones from the laying worker eggs smaller than those from the queen's eggs? I am sure this is not always true. I think Mr. Root right in questioning the fertility of such drones, tho I am of the opinion that they are functionally perfect. I arrive, of course, at this judgment from a study of their anatomy.

Page 101. It is very doubtful, indeed, that unimpregnated eggs will ever produce workers. That queens with imperfect wings sometimes lay eggs that produce worker-bees would seem to prove that occasionally a queen may mate in the hive. I feel quite positive that I once had a queen that was so mated. I can explain the case in no other way. Yet it is so exceptional that I still feel a doubt in the matter. I think in writing we should use the word fecundate or impregnate rather than fertilize, as we also better use the word pollinate instead of fertilize. Let us reserve the word fertile to indicate that the male or female is functionally perfect or sexually perfect.

Page 126—A case is given where night work with bees was carried on successfully. I occasionally practiced night working with bees where it was imperative, but I did not like it and would not recommend it except in extreme cases. The bees have such a way of crawling around and are not discriminating. Were I to work at night I should want a string around my "pantlegs," as also my wrists, and should desire my bee veil tuckt well in at the neck. Our author recommends this night work to prevent robbing. The bee-tent and other suggestions given in all our best bee-books are, I think, greatly to be preferred.

Page 126—"You could feed white sugar so as to produce very nice looking honey, but it would be sugar syrup in honeycomb after all, as you would find to your sorrow if you should attempt to sell it as honey." This is simply not true, as one experiment will satisfy anyone if he will but try it. I believe in telling the truth even if it confronts the prejudices of the whole bee-fraternity. Mr. Abbott at the last National convention stated and reiterated this untruth. If Mr. Abbott will feed his bees pure granulated sugar syrup and then taste of the product, he will find that it is certainly honey and not sugar syrup. It surely will lack any aroma which might be secured in the nectar of flowers, but it will have decidedly the taste of honey, and will be preferred by many to any other kind of honey, as I have proved more than once. Yet it will rarely if ever pay to do this even if there were no prejudice against it, and in view of the prejudice it would certainly be unwise. Let us talk, however, of its nonprofitableness, and of its unwisdom, and not state what we can all so easily prove is not the truth. I was brought up to believe that untruths never pay, and I have never yet seen reason to believe otherwise.

Page 129—I have always wondered at the statements we so frequently see of bees expelling water from the honey while on the wing. I never saw it and don't believe they ever do it. We have so many reports that there certainly must be some ground for the opinion. If a fine mist does escape from the bee, it is surely one of two things—either excreta from the intestines, or perspiration from the bee. The bees excercise very severely and must of necessity cool off. This must be done thru perspiration. This perspiration must occur in the breathing tubes as the thick chitinous crust of the bee's body would preclude much if any sweating from the exterior surface. I have no doubt that much evaporation of moisture escapes from the trachea of the bees when the latter are hard at work in very hot weather. That this might descend in a mist is possible. I should like, however, to see it.

Page 142—Our author speaks of honey from the nectar of fruit-blossoms as of poor quality. I would like to hear from others on this subject. I was once so happy as to get some unmixt apple-blossom honey. I thought I had never tasted any so excellent. Others to whom I gave this were equally enthusiastic.

Page 144—I have often been puzzled, as has Mr. Root, in the varying opinion among fruit-growers as to the value of bees in the work of pollination of fruit-blossoms. I know positively that some varieties of fruit are at times entirely fertile to their own pollen, and again utterly sterile to the same. The vigor of the tree must play no small part in this matter. Yet no fact in pomology is better attested than is the necessity of bees in or near the orchard if we are to secure the maximum fruitage.

(To be continued.)

Management for Producing Extracted Honey.

BY C. DAVENPORT.

FOR the last seven or eight years I have run from 30 to 40 colonies for extracted honey, and intend this season to increase the number to over 100, and I will describe the plan or method on which they will be run, and tho this method might not answer for some localities, it is the one that will work here, I believe, and secure the most surplus with the least work.

While it is generally claimed and conceded that it requires less work and skill to produce extracted than comb honey, I have not found this to be altogether so. If I had for the last few years I should have been producing extracted in a much larger way, and would do so now. The first season I ran a number of colonies for our product in the liquid form, it seemed to me that it required fully as much, if not more, work as well as skill to produce a first-class article of extracted honey, as it did fancy comb honey. But I have learned enough about this branch of our pursuit since, so that I can now produce extracted with considerable less work than comb.

Now the question may occur to some, why I started and kept on producing extracted honey, if, with me, it required as much work and skill as it did to produce comb honey. There were a number of reasons for this, and two of the principal ones I will explain. One was that there was a local demand for extracted honey, at a better price accordingly than there was for comb honey. I had, and have at present, a still larger number of customers who prefer honey in the extracted form, many of them preferring it because it is cheaper—in fact, I have a good many customers who use a large amount of extracted honey every year, and pay a good price for it, compared with the price of comb honey, who would buy but very little if any comb honey, because they could not—or at least believe they could not—afford to. Others actually like it better in the extracted form, and again some who are very fond of candied extracted honey care very little about comb honey. Personally, I much prefer it in this form to comb honey.

I used to extract a large amount of honey from the brood-chambers late in the fall, then feed sugar syrup for winter stores. At that time there was a good profit in doing this, and the bees seemed to winter fully as well on granulated sugar, as it was then made, as on natural stores, and the honey thus obtained, tho it might be somewhat mixt, was always thick and rich. But the price of our product dropt so low that there was no longer profit in producing extracted honey in this manner, tho I had a trade for it already workt up—a trade that, as I have explained, would not take comb honey in place of extracted.

Another, and more important reason, was that about that time (and I have seen no reason since to change my opinion) I became convinced that more money could be made from a large yard by running part of the colonies for extracted honey, for here a range may be overstockt during the forepart and latter part of the season, and still not have enough bees to gather what nectar there is during clover and basswood bloom. This is not the case every season, but on an average it will hold true two seasons out of three, and a colony that is being run for extracted honey can gather considerably more nectar than one being run for comb honey, for these reasons: A larger number of colonies can be profitably kept in one yard if part of them are run for extracted, than could be done if they were all run for either comb or extracted honey. After carefully repeated experiments, some of which I have described in these columns, I know, if I know anything about bees at all, that more extracted honey can be secured here if the queen is confined by zinc to the lower story of a hive not larger than the 10-frame. The reason for this is, that with a larger brood-nest an immense force of bees are reared out of season, to be producers, but are, instead, consumers. I know that this matter of rearing bees out of season has been ridiculed by some, but here it is a more important matter—one that to ignore may mean the loss of a number of thousand pounds of surplus honey with a large yard, each season. I am aware that this is a strong assertion to make, and that it is likely to be disputed by many able ones in our ranks, but it should be borne in mind that I make this claim only for my own locality, and for others where the flows are similar to what we have here, relatively to the season.

It may be of interest to the newer readers of this journal, for me very briefly to go over the experiments I made to find out whether it was more profitable to allow more than one story for a brood-nest. These experiments extended over a number of seasons, with slightly varying results, owing to the varying conditions of the seasons, as well as that of the bees. But without any exception they all showed that a brood-nest here could be so large that it would reduce the amount of surplus extracted honey that could be obtained; besides, these large brood-nests, especially the unlimited ones, entailed much more work to get what surplus there was, and to reduce or get the bees into one story again for winter.

My method was, each spring, to select 30 or 40 colonies as nearly equal in strength as possible, and divide them into lots of 10 each. The queen in one lot would be confined by zinc to one story; those in the second lot would be allowed two stories for a brood-nest; while the queens in the third lot were allowed their will in 3 or 4 stories. Some lots were in 10-frame hives and some in 8-frame, and, so far as surplus honey was concerned, these two sizes of frame made but little difference either way. But with the plan I now practice, there is considerably more swarming where the queens are allowed 10 frames than there is when they have only 8 for a brood-nest. When the queens are allowed two brood-chambers there will be here, in a good season, about half of them that will swarm, and some seasons as large a percent of swarming will take place when the queens are confined to 10 frames; but with only 8 frames for a brood-nest the swarming will not be over 10 percent—it has been less with me the past two seasons. It is true that both seasons were poor ones, still there was enough honey gathered so that nearly 30 percent of the colonies that had 10 and 16 frames for a brood-nest swarmed, or tried to do so.

Southern Minnesota.

(To be continued.)

Longer Tongues and Larger Bees, Etc.

BY ADRIAN GETAZ.

BEES with longer tongues is the topic of the day. Measure the length of the tongues of the different colonies of bees and select for breeding those with the longest-tongued bees, if I can use that expression.

Well, to begin with, I doubt about the exactness of the measurements given by Mr. Ernest Root and a few other experimenters. It seems to me that the difference between the tongues measured is too great. There is hardly any difference in the size of the bees and in the different organs and parts of them; and I don't see how the tongues could make such striking exceptions, the measurements varying between 13-100 and 23-100 of an inch. The tongue of a bee is very near as elastic as a man's tongue. How could you measure exactly the length of a man's tongue which can change its length, width and shape in all sorts of different ways? And it is nearly so with bee-tongues.

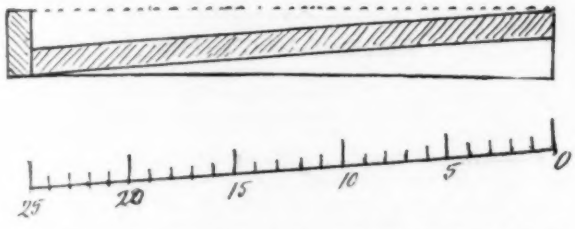
The method employed to measure them, is to chloroform the "subjects," which makes them extend their tongues, and measure them with calipers. But what proof have we that they all extend their tongues to the same extent? None at all.

Again, there is a considerable difference between the length of tongues of the different bees of a colony (when measured by the above-described process), and even admitting that the measurements are correct we can measure only a few bees—say 20 or even 50 out of at least four or five thousand bees of a colony. We may have measured some of the shortest in one colony and some of the longest in another, and failed to reach the proper average length, or rather maximum length, for this would be the important item to obtain.

I do not say that this method of measurement should be discarded, but I think necessary to have some indirect way to check it, and ascertain to what depth the bees of each colony can reach for the honey in the flowers. For this I think an instrument as here represented would be the best. It is simply a trough 4 or 5 inches long and not more than ¾-inch wide inside. The top is made of wire-cloth thru which the bees can suck the syrup. The depth is from ¼ of an inch at one end to nothing at the other, forming an incline. A scale is markt on the bottom dividing it by transverse marks in 25 parts graduated from 0 to 25, commencing at the end where the depth is nothing. To use the instrument, fill it with syrup or thin honey thru the wire-cloth. Place it in an empty super on the top of the brood-nest or the super that may be already there, being sure that it is level. This can be easily done by placing it so that the syrup comes even with the wire-cloth over the

whole surface. When the bees have taken all that they can, notice (without disturbing the instrument) to which division the syrup reaches. If it reaches, for instance, to the 17th mark, it shows that the length of tongue of the bees, or rather the distance from the wire-cloth to the level of the syrup, is 17-100 of an inch, and since the 25th division corresponds to a depth of ¼ of an inch that is 25-100.

This instrument will give a depth or length of tongue rather too long, as a portion of the bee's head above the tongue may go thru the wire-cloth. From a practical standpoint, it is immaterial whether we get the exact length or not—what we need to know is the comparative length, or in other words, which bees can reach the deepest. If several instruments are used, and the results to be compared, it will be necessary to use the same kind of wire-cloth on all, for the reason that a greater part of the bees' heads



could go thru a larger wire mesh and enable them to reach deeper. The instrument should be constructed accurately, waxt or paraffined so as to prevent swelling of the wood and possible distortion. Care should be taken that the wire-cloth should lie evenly all over, and for that reason the instrument should not be wider than ¾ of an inch, otherwise it would be difficult to prevent the cloth from bulging in places. When it comes to measure to a precision of 1-100 of an inch, the instruments used must be accurately and carefully made.

LARGER BEES FOR LONGER TONGUES.

All other things being equal the largest bees should have the longest tongues. And to have the longest tongues possible, it will be necessary to have the largest bees possible. In fact, the main argument presented in favor of a larger race of bees is their presumed ability, thru a longer tongue, to reach the nectar of flowers too deep for our present race of bees, especially the red clover.

There would be another advantage in having larger bees. That is, less time lost in going to and coming from the fields. Suppose you had a pile of materials to remove—say 2,000 pounds—and want it carried to a distance of 500 yards. If you employ a man able to carry only 50 pounds at a time he will have to make 40 trips—that is, walk a total distance of 20,000 yards. If you take a man able to carry 100 pounds at a time, he will have to make only 20 trips, therefore to walk only 10,000 yards. It may take him as much time to load and unload his 20 loads as it takes the smaller man to load and unload his 40 loads, and he may not walk any faster, but even then, he would be ahead of the time necessary to walk thru 10,000 yards. So it would be with larger bees—they certainly would lose less time in going and coming.

EFFECT OF COMB FOUNDATION.

A few years ago the question was askt, "Has the size of the foundation cells any influence on the size of the bees reared in them?" To my surprise nearly all the "wise men" answered, "No, none at all." And yet it is self-evident that no bee can be larger than the cell in which she has been reared, for the simple reason that all her growth is done when she emerges, and her skeleton already formed and too hard to expand any. The abdomen and other soft parts can and do expand some after the emergence.

All the above-mentioned "wise men" knew good and well, that the drones reared in worker-cells are much smaller than those reared in larger cells.

Before foundation was used there was quite a difference between the different races of bees in regard to size. There was a race of black or brown bees in Holland much smaller than the common German bees. The Carniolans were distinguisht by their large size. Among other figures we have some of Cheshire giving the weight of 20 Cyprian bees at 28 grams and of 20 Carniolans at 40 grams. We don't hear any more about a difference of size, now. Why so? Just because foundation of a universal size is universally used—5 cells to the inch—and with a uniform size of cells has come a universal size of bees.

The first step will be to use a larger size of cells. But that is not sufficient. The size of bees will not increase at once, simply by giving larger cells. It will be necessary to select the queens giving the largest bees, and keep on breeding for the largest all the time. One drawback will be that with a larger size of cells there may be an over-production of drones. The only way to prevent it would be to increase the size of cells, at first of only a small fraction, and later, when the new race is establisht, make another increase.

Several years ago, a distinguisht French apiarist, Mr. Drory, gave a number of queens only drone foundation. A number of them reared worker-bees in those sheets, but some others only drones. I have not the details of the experiment. Judging by what has been done with horses, dogs, fowls, etc., we might think it possible (and perhaps it is) to create a race of bees even larger than the Apis Dorsata. We shall name it (if it comes) "Apis americana."

Knox Co., Tenn.

Questions and Answers.

CONDUCTED BY

DR. C. C. MILLER, Marengo, Ill.

[The Questions may be mailed to the Bee Journal office, or to Dr. Miller direct, when he will answer them here. Please do not ask the Doctor to send answers by mail.—EDITOR.]

Plan for Comb Honey and Increase.

1. What do you think of the following proposed plan for comb honey and increase?

The staple honey-plants for this locality are the wild red-raspberry, and buckwheat. Build colonies up as strong as possible even to the point of swarming, for the raspberry bloom, then divide by taking the queen, and say three frames of sealed brood, from the parent hive, place them in the new hive with a couple of frames of foundation, and place the new hive on the stand of the old one, removing it to a new stand and in the course of 24 hours introduce a Carniolan queen. We have here forage for bees at all seasons; basswood is not sure for surplus. The present bees are Italians, which we mean to keep up, the only object in putting in the Carniolan being the *reputed* prolificness.

MICHIGAN.

ANSWER.—Your plan and your surroundings are so much out of the line of my experience that I do not feel very competent to answer. However, I am not very much afraid of doing harm, for sharp eyes are ever on the watch to correct what may be wrong. For those sharp eyes I am thankful, for I well know that eyes may be very sharp and at the same time very kindly.

Your plan is evidently intented to obviate swarming, and yet I am a little afraid it might not be successful in general. A more severe depletion might be needed, and I should advise trying at least some colonies by leaving with the queen on the old stand not more than one frame of brood, filling up with frames of foundation, and brushing the bees off about half the frames removed. Then two or three days later take away their remaining old frame of brood.

If you have never tried Carniolans, it might be well for you to try giving them to only part, so as to compare their work with that of your other bees.

A Beginner's Questions.

1. Where can I find the queen-cells? Also tell me other things which I, as a beginner, do not know.

2. Is buckwheat a good honey-plant?

3. I hope soon to be able to purchase "A B C of Bee-Culture," or "Langstroth on the Honey-Bee." Which is the better for me?

MISSOURI.

ANSWERS.—1. From the way in which you ask the question, it is possible that you think there is a cell in the hive that the queen keeps for her own, perhaps retiring to that cell every night to go to sleep. So far from this being the case, it is true that after the young queen emerges from her

cell she never enters it again, and it is not a great while after she leaves it until the workers tear it down all but the base or enough to make a concave hemisphere. If you look into a hive at this time of the year, it is not likely that you will find a queen-cell in it, but you will be likely to find quite a number of cell-cups, some of them the remains of queen-cells from which queens have issued, and some of them cups that the workers have started and never finisht, and most of them they never will finish. If you look into a hive at the time a first swarm issues you will find 5, 10, 20, or perhaps more queen-cells with young queens in them, and they may be in any part of the hive. Generally they will be found near an edge of a comb, possibly right among the worker-brood near the center of a comb where there happens to be a hole or an irregularity. Sometimes you may find a queen-cell not on the comb at all, but built directly on the wood of the end-bar, but this is very rare.

You must excuse me from attempting to tell you all the other things that you as a beginner do not know, that is, if the list of unknown things is as long as my list was when I was a beginner. It would take many pages of this journal to contain the answers to all the questions I had, but most of the desired information can be obtained from the excellent text-books we now have.

2. Buckwheat is one of the best honey-plants. It does not yield the best honey, for the honey is very dark, and most persons do not like it so well as honey of milder flavor, and yet some prefer buckwheat honey to any other. It is, however, a somewhat fickle yielder, one year yielding an abundant harvest and the next yielding nothing.

3. If you get either you will have a treasure, and will find in it so many good things that you will wish you had the other also, with Prof. Cook's excellent work added.

Introducing a Queen to a Colony that Has Just Swarmed.

I would like to know, just after a swarm issues, how to give the old or mother colony a laying queen.

WISCONSIN.

ANSWER.—Give the queen in an introducing-cage, and there may be no trouble without any further attention. It will be safer, however, to destroy all queen-cells in the hive.

Putting Bees Out of the Cellar at Night.

Is there any objection to putting bees out of the cellar at night? WISCONSIN.

ANSWER.—There is probably no difference between putting bees out at night and putting them out the following day. That is, if you are sure you will put them out to-morrow morning, you may as well put them out to-night. But you can not always be entirely sure at night that you will want to put them out in the morning. For the weather is sometimes so changeable that between night and morning the temperature may sink so many degrees that it will not be safe to have the bees out. When bees have been in the cellar all winter and are put out-doors, they are not as prudent as they might be, and will fly out in weather when large numbers of them will be chilled and be lost. If you could be sure of good weather the next day, it would be all right to take out bees at night, but on the whole it is more prudent to take them out when you know they can fly with safety within ten minutes of being taken out.

Uniting Colonies and Introducing Queens.

1. I have some colonies which I wish to unite. When do you consider the best time in the spring for doing it?

2. Which plan is the best?

3. Would it be advisable to introduce a new queen at the same time? BRITISH COLUMBIA.

ANSWERS.—1. If you intend to unite colonies in the spring, it may be safely concluded that it is because the colonies are not strong enough single. If you have two colonies, each having bees enough to cover two frames of brood, they ought when united to be able to cover at least a little more than four frames of brood. At all events, when the two are united you will have six frames of brood sooner than you would have done if you had kept the two separate. So you can easily see that you will gain nothing by waiting, and the sooner the uniting is done the better. Unite before the bees begin to fly, and there will be less danger of the bees of the removed colony going back to the old place.

2. There is little danger of fighting if you alternate the frames with their adhering bees, first a frame from one hive then a frame from the other, and so on. If you unite before the spring flight, there is little danger of trouble if you simply put one set of combs in the hive beside the other. In any case, if you see any bees doubled up in the death struggle on the bottom-board after having been stung, or any other sign of fighting, give them smoke till they promise to be good, as Mr. Root says. If they get bad again, smoke them again.

3. Yes, you can introduce a queen at the time of uniting if you kill the other queens, altho on account of the greater difficulty of getting queens in spring, and the greater cost, very few queens are introduced in early spring.

Excellent Alfalfa Honey.

I have mailed you a sample of honey that I think to be first quality, and would like to have your opinion.

UTAH.

ANSWER.—I have no quarrel with you for calling it first-class. It is very white indeed, and altho very mild in flavor, like all alfalfa honey, what flavor there is is excellent.

Convention Proceedings.

Report of the South Dakota Convention.

BY E. F. ATWATER.

The annual convention of the South Dakota State Bee-Keepers' Association met at Yankton, Jan. 25, 1901. More than half the members were present, and all were very enthusiastic, considering the past poor honey season.

Many interesting points were brought out in the discussions; a short talk by Daniel Danielson, was especially interesting, his subject being "Migratory Bee-Keeping." Some years there was a good profit in moving bees from one locality to another; in other years it would be a loss, as the honey-crop can not be foretold. In moving bees they should have an abundance of ventilation, and the hauling should be done at night, when possible. Cold water soust down thru the hives helps to bring the bees thru in perfect condition, without loss of energy or numbers.

President Thos. Chantry called attention to the real necessity of maintaining our organization. Our association protects its members, as we have joined the National Bee-Keepers' Association in a body. If all the State bee-keepers' societies would join the National in a body it would be a great help to the National in its great work of fighting adulteration, and protecting the bee-keepers of this country. All the bee-keepers of the State should get in touch with the State association, as by so doing they get full protection from the National also. Many of our members have saved several times their membership fee, in buying their supplies thru the association.

A paper on foul brood—that most destructive of bee-diseases—was read by E. F. Atwater. By special request, the Rev. Dr. Matson, formerly of Ohio, spoke briefly on the "Home of the Honey-Bees," and of the members of the Root family. His address was very enjoyable.

E. F. Atwater was made Association foul-brood inspector for South Dakota.

At the evening session J. J. Duffack gave a report of the great National Bee-Keepers' Convention, at Chicago, bringing out very prominently the great need of a suitable National pure-food law.

A paper by Mr. R. A. Morgan, formerly an extensive Wisconsin bee-keeper, toucht on the value of honey as a food, its wonderful keeping qualities as compared with butter and other foods, the causes and processes of swarming, and queen-rearing.

Mrs. John M. Downer spoke of the convention of the Horticultural Society, at Sioux Falls, S. D., and of the grow-

ing sentiment in favor of holding the bee-keepers' and horticulturalists' meetings at the same time and place.

In the question-box and answers, glass was decided to be the best package for retailing extracted honey. A point brought out that is not well understood by the general public is that practically all granulated honey is *pure*, and easily liquefied by gentle heat.

In regard to honey-plants, catnip was thought to yield very little; sweet clover is the great honey-plant for South Dakota. Fifteen acres of sweet clover supported 30 colonies, and each colony gave about 50 pounds of surplus honey. It was thought that 70 colonies might have given as large yield per colony, as 30 colonies did not seem able to work the entire field.

Increase by dividing was generally preferred for the experienced bee-keeper.

Attention was called to the good qualities of sweet clover hay, but horses and other stock must be taught to eat it, and it must be properly cured.

Thomas Chantry was elected president; J. M. Hobbs, vice-president; J. J Duffack, general manager, and E. F. Atwater, secretary.

The committee on resolutions reported as follows:

Resolved, That the South Dakota State Bee-Keepers' Association call the attention of all other State bee-keepers' societies, to the benefits of joining the National Bee-Keepers' Association in a body, thus increasing the membership and power of the National Association.

E. F. ATWATER, *Sec.*

The Vermont Bee-Keepers' Convention.

BY M. F. CRAM.

The 26th annual meeting of the Vermont Bee-Keepers' Association was held in connection with the Vermont Horticultural Society, Dec. 5, and 6, 1900, at Brandon, under the auspices of the Brandon Grange, which furnisht hall, lights and music.

The meeting was opened by Pres. R. H. Holmes, and prayer was offered by H. L. Leonard. The minutes of last meeting were read and approved. The Secretary's and Treasurer's reports were read and approved.

Pres. Holmes' address was delivered without notes, and as the secretary is not a shorthand reporter, he caught only some of the more important points. Mr. Holmes said that Vermont produced 1/33 as much honey as California, where the honey is mostly extracted, but Vermont honey is mostly comb. What Vermont lackt in quantity she made up in quality. Vermont leads the country in quality of horses, butter, apples, sugar, etc. Addison County produced ¼ of all the honey in Vermont, but he thought honey could be produced in other places at a profit. The public were not informed in regard to the method of producing honey, but were learning. People have to learn to keep bees, the same as any other business, in order to make a success of it. There is no luxury that people like more than honey. Honey is something that would keep—it need not be sold until the producer is ready. Altho the last two seasons have been poor, bee-keepers are not discouraged. We should have better seasons soon. Eternal vigilance is the price of success. We are met to tell each other of our success and failure, and the points of interest in our pursuit.

A discussion followed on the peculiarities of the past two seasons. Mr. Leonard said Rutland County had had better seasons than some other counties, but the past two seasons had been very poor, 1899 being the poorest season without any exception for 50 years.

The past seven years have been poor for honey-production. Mr. Cram said that 1860 was the poorest season he ever knew—about every colony in Addison died.

Mr. Leonard had had seasons when his colonies averaged 100 pounds each, but they had not done so for the past seven years. We have made great strides in the management of bees in the last 50 years.

Mr. Larrabee spoke about the bees building comb when the season is dry; also that the bees capt the comb more readily in dry seasons than in wet ones.

Mr. Crane said one class of flowers would produce honey one year, and the next year they would not, but some other would take their place. The past season was the best for 40 years, thru fruit or apple bloom.

Mr. Terrill, from Lamoille County, said that bees did better last season than in 1899. He got no basswood honey tho it bloomed full.

M. F. Cram then gave his method of getting a crop of honey in a poor season, which was in reality the same as in good ones. The first thing he did was in the month of July the year before, and that was to see that each colony was put, and kept, in such condition that it would have a hive well stockt with bees in September or the first of October. He could not let his bees swarm later than June and get good results from them the next season. There was generally a honey-flow some time in the season, and in his locality it was usually in June. He had his colonies strong early, or he "got left." His main honey-crop is from raspberries. He used a larger hive—(9 frames) about one foot square. We didn't very often lose any bees in winter, not more than one or two percent, but in the fall he had doubled up and had some empty combs. In the spring he has had some colonies so strong that they would occupy two hives in good shape—one empty hive on top of a strong colony. The queen would occupy both brood-chambers. He had one queen enter an empty brood-chamber and lay 11,000 eggs in three days. When some other colony swarmed he drove the bees all down out of the top brood-chamber, and then hived the new swarm into that, putting on sections, and also putting sections in the place of the removed brood-chamber, and both colonies would push things with vigor. He wintered his bees in the cellar with no upward ventilation, and didn't remove them from the cellar until they could gather pollen.

Mr. Crane said it was well for every one to study his locality, and be ready when the flow comes.

The chairman appointed the following committee on nominations: G. H. Terrill, A. J. Vail and Lewis Bascom.

QUESTION BOX.

QUES.—Can bees make comb out of sugar? ANS.—Yes.

QUES.—Is the honey as good for comb building one time as another? ANS.—Yes; but the temperature is not.

What is the difference between honeycomb and honeymoon? ANS.—Honeycomb is composed of a lot of small cells, and honeymoon is one big sell.

Does alsike clover produce honey the first season? ANS.—Not in sufficient quantities to produce surplus honey.

How are surplus combs stained?

Mr. Larrabee said they were stained by wet weather, also by using old comb where the bees had died.

Mr. Crane then spoke on travel stain. It is caused by several things, one is using foundation to cap with; another cause is pollen. Sulphur will remove it. Propolis used to seal the combs could not be removed, but could be lightened in color. He had made a little tent or lean-to, and had used it for bleaching. It was 10x13 feet. He could bleach 1,050 sections at one time.

The committee on nominations reported as follows: president, J. E. Crane; secretary, M. F. Cram; treasurer, H. L. Leonard; vice-presidents: Orange County, T. H. Edson; Lamoille, E. K. Seaver; Chittenden, O. J. Lowrey; Rutland, V. N. Forbes; and Addison, L. O. Bascom.

All were elected.

Mr. Crane gave his paper on pickled brood, which the secretary failed to get, but the disease is not serious in Vermont.

Mr. Leonard then gave a talk on the loss of queens in mating. If separated far enough they would not be lost in a house-apiary. If there is room to place one hive at every other place, it will help.

Mr. Holmes has a house-apiary. He painted up and down the building 6 feet wide in red, white and blue, and lost 16 out of 26 queens. There was no difference in loss whether they were at the end or middle of the building.

Mr. Crane had changed the entrance and it had helpt. He had noticed that if some object were placed near the hive it had helpt about the loss in mating.

Mr. Leonard had trouble with bees leaving their hives and going in where there was a queen, they in the meantime being queenless.

Mr. Holmes had had swarms mix in his house-apiary on the side of the building.

A vote of thanks was extended to the Brandon Grange for the use of the hall and for music.

The time and place for the next meeting were left with the secretary to confer with the secretary of the Horticultural Society, to meet as they could arrange.

M. F. CRAM, *Sec.*

The Afterthought.

The "Old Reliable" seen thru New and Unreliable Glasses.
By E. E. HASTY, Sta. B Rural, Toledo, O.

THREE "WIVES" IN ONE HOUSE.

Of course we are Schmidtten with desire to know how three queens to one colony are secured, page 71. Was the information withheld on purpose to make us cry for it? We can *see* that there are three stories and three entrances. I'll guess that the mid-story has zinc both above and below, and a partition across the middle. But then, but then; it's one thing to show us how to have three wives in one house without any quarreling, and quite another thing to prove that such an establishment is wise or profitable. I can see that a *queen-breeder* might like to have an excess of tested queens to draw upon.

WANTED—A NONBUSTABLE HONEY CAN.

But, Mr. Aikin, I don't want to speak well of a honey-can that will burst unless we wait for the honey to candy before we ship it. Better we insist on a can that will carry liquid honey to market. First you know, we shall learn the art of keeping our honey liquid pretty much all the time. A nonbustable can will not offend at all your lovers of the granulated article—or steal Mr. Doolittle's thunder and send it to 'em in a *box*. Mr. A. is right on the main point, however. Make your plan and your price according to your situation, and don't be bluft out of it by the brother who has a fancy trade, and who wants you to try the impossible task of bringing non-fancy people up to its lines. If you want your honey eaten daily on the poor man's table, you must compete (to some extent) with home-made sugar syrup. If you can see your way clear to do without the poor man's custom, why, that is your privilege. Page 74.

BROOD-COMB 25 YEARS OLD.

Editor Root's account of the 25-year-old comb is reassuring, and also just what we might expect. Presumably the extra thickness at the bottom is more or less mixt with dried food. I strongly suspect that bees in winter supply themselves with a small amount of nitrogenous food by chewing these dried masses—one reason why old comb winters bees better than new combs—and also the origin of the little heaps of fine stuff we see on the hive-bottoms. *Possibly* in a land where there was no winter the bottoms would continue to thicken. Even with us an occasional colony does plaster in their cells with black-looking wax till the comb in places is nearly a solid mass. Perhaps that may be much more common in Europe than here. Page 84.

ENTRANCE-FANNING AND QUEEN-FINDING.

And so it is not at the side where fanning bees are, but at the other side that we are to expect the queen. I made and propagated a very natural mistake; so now let us get our heads level on the subject. By the way, McNeal's correction would be misunderstood by a beginner. Strictly speaking, bees do not force air into a hive; they fan it out, and other air follows in by the easiest route. May it not be that it is not the bees but the queen that determines this whole little matter? She feels a current of air, doesn't like it, and directly goes elsewhere. Page 76.

HOW MANY BEES DIE IN WINTER.

On page 88 a beginner asks how many bees die in winter; and Dr. Miller sagely answers, "A whole lot." This suggests, for more than the thousandth time, that we greatly need some common agreement as to what we mean by "the winter." Most of our chunks of wisdom are more or less reduced to fog by the indefiniteness of that term, if they happen to contain it. A colony of 16,000 bees might get thru December, January and February with a loss of only 1,000—and yet "every man of them" die before May 10th. In this case one man would say, "Only a small proportion of my bees died in the winter;" and another would say, "The winter killed 'em, all dead as nails;" and both these men would be telling the truth. Can't we fix things, brethren, so a man can tell a lie when he tries? We seem to have *three* winters. The greater one begins when daily flight ceases, say Oct. 10, and ends when they begin to build up in numbers, say May 1st. (One bad winter I noted that May 6th was the lowest point with my bees.) The lesser winter is of course the three months usually designated as "winter months." Then there is an intermediate sort of winter which has its beginning Dec. 1st, and its end anywhere the season and the speaker may happen to put it—usually at the warm spell which brings in the first pollen—sometimes in March, and sometimes in April. Somebody tell us what we would better do about it.

GENERAL ITEMS

Good Report—Bee-Hive Incubator.

I started in the bee-business last spring with 11 colonies of bees, and put 26 into winter quarters in the cellar, and they seem to be wintering all right. I sold three colonies during the summer to an old bee-keeper, and got about 650 pounds of honey all in one-pound sections, which I sold in the home market at 15 cents per pound.

My bees are all "well-bred." I bought some queens last summer from some of our noted queen-breeders, and I don't see much difference between them and my old stock.

I am going to try using the bee-hives as incubators the coming season. My father used to tell me not to "count the chickens before they were hatcht," so I will not say how many I will have.

We have had nice weather up to yesterday, when we had a big storm. I can not get along with the American Bee Journal.

G. W. KREAMER.

Audubon Co., Iowa, Feb. 4.

Queen-Rearing.

Mr. Pridgen's article on queen-rearing (page 401, 1900) is very interesting and important to every bee-keeper even if not in the queen-rearing business, but unfortunately I can say with "Apis Mellifica" (page 470, 1900), that I have read it and reread it 50 times, perhaps, hoping itwould clear up, but it is still Greek to me. "Apis Mellifica" complains

only of one passage, but the whole last page is almost a dark cloud to me.

What a splendid gift Mr. Doolittle has in being able to explain his ideas so clearly and logically, and building up in such correct order one thought after the other, in a way that one *must* understand.

I tried Mr. Henry Alley's method of queen-rearing with good results, while I made a failure of Mr. Doolittle's, but I am convinced that it was my own fault. I should like to know, tho, where I was at fault—whether in transferring or in the colony I used to rear the queens. The result always was that after transferring food and larvæ into made queen-cells, inserting them into an upper story over a queen-excluder, with a good colony and laying queen below, the food and larvæ would be gone and the queen-cells empty the next day. The excluder covered only a part of the colony below. Could this have caused the trouble?

I do not advocate increase by swarming, but prefer to build up nuclei and keep down the swarming-fever. J. NOELTING.

Argentine Republic, Oct. 10, 1900.

Bees Wintering Well.

The weather is fine, and no snow as yet. Bees appear about normal in the cellar.

Sioux Co., Iowa, Feb. 21. F. W. HALL.

Poor Seasons—Hive for Extracted Honey.

The honey-business has been rather discouraging the past two seasons in this section, on account of the dry weather. Bees stored very little surplus, and a great many are dying of starvation this winter; but we are looking for better things in the future.

Which is considered the better for extracted honey—the 8-frame or the 10-frame Langstroth hive? W. S. SHIELD.

Pierce Co., Wash., Jan. 31.

Has a $100 Queen.

I had one queen last season that helpt me to clear $100, and I can prove my statement. From her colony and the two swarms which issued from it, I secured 325 pounds of fine honey between March 1st and Sept. 1st. I sold the honey for from 30 to 40 cents per pound—Mexican money—so you will plainly see that I had a $100 queen.

Bees do well here, but the demand for a good article is very small. Extracted honey brings from 10 to 25 cents per pound, and strained honey from 4 to 6 cents—that is, in "Doby dollars." W. S. ALLAN.

Mexico, Feb. 11.

Report for 1900—Two Queens in One Hive.

My crop of honey for 1900 was practically the same as that of the two preceding years—an average of 40 pounds per colony. I disposed of all of it in the local market at 14 and 15 cents per pound. I also increast the number of colonies one-third.

We all winter our bees out-of-doors here, and never lose any unless they are very weak.

By way of experiment I am wintering two queens in one hive, with a division-board between the small colonies. These are in the cellar. A. B. CROSS.

Meigs Co., Ohio, Feb. 4.

Feeding Bees in Box-Hives in Winter.

On page 88 some one asks how to feed bees in box-hives in the winter. Like questions are so often askt that I am tempted to give my practice, which seems to conflict with the answers of others.

I have several colonies in straw-hives that are short of honey. I have feeders made of baker's tins, 9x12x2 inches, with thin strips running lengthwise to keep the bees out of the feed. I then make a rim two inches wide, the size of the bottom of the hive, and place this on the bottom-board, with the feeder inside of it. I put the hive in the cellar, or an adjacent warm room, at night, then fill the feeder with very warm syrup, made of 10 pounds of sugar, 5 pounds of water, and 5 pounds of honey. I then put the hive on the rim over the feed, and give them upward ventilation, to let off the steam or moisture generated by the bees. If the colony is large enough to be worth wintering, the feeder will be empty the next morning. The next night repeat this feeding. I would not advise feeding more than twice in this way, as that is all the unsealed feed a colony ought to have in the hive at this time of the year. If one desires he can bore six one-inch holes in the rim, and tack on wire-cloth, then close the entrance to the hives while feeding.

If I have a colony in a Langstroth hive that needs feeding, I simply put the feeder on top of the frames with two cobs across it to keep the covering up, fill the feeder, and cover all with the cushions.

I fed bees successfully years ago with this plan, and have fed several colonies the same way in my basement this winter, where the temperature was at least 60 degrees above zero, and have not lost a hundred bees.

While this method is perfectly safe and satisfactory in the early winter months, it would not do at all to try it in the spring months when the bees have become filled with excrement and uneasy for a flight.

GEORGE W. BASSETT.

Washington Co., Vt., Feb. 10.

1900 Almost a Failure—Laying-Workers.

The year 1900 was almost a failure for Missouri bee-keepers. The last three seasons have been very poor, but we are looking for better things next season.

I put 19 colonies into winter quarters in 1899, and did not lose any of them. In the spring I increast to 28 by dividing. Bees swarm very little here, so I did not have any natural swarms.

I winter the bees on the summer stands, with chaff cushions over the brood-frames.

When I examined the bees last spring I found one colony with laying-workers; I gave them eggs from another colony, but they would not start queen-cells, so I gave them more eggs, and changed places with another strong colony, and the strange bees started cells properly, and reared a queen. This colony is now one of the best I have.

My bees stored honey enough for winter stores, but very little surplus. I like the American Bee Journal very much.

R. COYLE.

Vernon Co., Mo., Dec. 20, 1900.

Bee-Exhibits at Farmers' Institutes.

I take great interest in reading the American Bee Journal, and took special pairs to have my last year's numbers displayed at our county "Farmers' Institute." We secured space for an exhibit of bee-supplies, fixtures, etc., as well as bee-literature, which was of interest to many. We hope to see good result from our efforts to bring before the people the merits of bee-culture. I see no reason why the honey interests of our country should not have as much attention paid to them in our institutes as is paid to horticulture or poultry. To be successful in horticulture we must call bee-culture to our aid.

Many often ask the question, "What's the matter with my bees?" and doubtless those very persons have never taken a bee-paper in their lives, nor even read one.

CYRUS DOUGLAS.

Johnson Co., Nebr., Feb. 8.

The Cry of Hard Luck in Cuba.

It seems very strange to me that altho everything I read in the bee-papers about Cuba is full of foul brood and all sorts of bad things, yet the writers of these articles are buying new hives by the hundreds. It is hard to reconcile the theory with the practice. One of my friends who talks most discouragingly about it has bought 500 new hives this season; another who has recently publisht a very pessimistic article is putting in 350 more. Personally, I have always advised my

friends not to come here, yet I have just received 500 new hives with some "trimmings."

Some time ago it was stated in the Bee Journal that a subscriber had made a successful shipment of 200 colonies from the States, but in a more recent number he hints darkly at "diseased bees"—yet he has 325 more hives on the way here. And so it goes.

The representative of one of the big bee-supply houses spent a vacation here, and sold thousands of hives, tho we are all crying out that we can not make bee-keeping pay at the present prices—2¾ cents per pound for all kinds, from white to black. The only reason I see for this is that we feel that the profit to the colony is so small that we must have a great many of them in order to make it pay.

I have just returned from a trip over on the north coast. We went for 30 miles thru almost virgin forests, looking for good locations, but it would be impossible to get honey out of there for there is no road. The most of the way we carried our wheels down a river-bed, or followed the paths the deer had made along the ridges. For 25 miles we traveled entirely thru sugar-cane fields, which extend from the coast to the mountains—a block of cane 25x6 miles.

The scarcity of good locations is another reason for the cry of hard luck in Cuba.

Cuba, Feb. 4. HARRY HOWE.

A Fair Report for 1900.

Last fall I put 66 colonies of bees into the cellar in good condition, and secured 1,500 pounds of comb honey, which I sold in the home market at 15 cents per pound. I got no increase.

The weather was very dry the forepart of the season, as most of the honey was gathered from fall flowers.

I keep the queens' wings clipt, so I do not lose any swarms, and know just how old the queens are. I make from $100 to $300 out of my bees every year.

I recommend the American Bee Journal to all who keep bees. GEO. H. AURINGER.

Meeker Co., Minn., Feb. 16.

Bees Will Die of Starvation.

The past season, in this locality, was a total failure, and I had to feed nearly all of mine for winter. I know of no one else in this locality who fed the bees, and the report is that about five colonies out of every six will die of starvation. HARRY BROKAW.

Richland Co., Ohio, Feb. 15.

Cleanliness Among Bee-Keepers.

I notice what Mr. Abbott has to say on page 55, in regard to cleanliness on the part of the honey-producers. I can verify his statement as far as some of the California bee-keepers are concerned.

I think if we would all be more particular in preparing our honey for market we would receive a much better price.

We have just had the best rain in 10 years. C. E. STEVENS.

San Diego Co., Calif., Feb. 7.

Feeding Bees Grapes—Introducing Queens.

I have been askt how to feed grapes to bees, so will here give my method:

I crush the grapes the best I can, then put them in a large pan, tipping one end a little higher than the other, and having the pulp on the highest end; in the lower end I put some grass, or something of that kind, so that the bees will not drown. After they have taken all the juice, they will gradually work the pulp "down hill."

Having a few more queen-cells than I wanted at one apiary, I cut them out, put them in a pasteboard box, making a few holes in it for air, put it over a strong colony, with a queen-excluding board between, and forgot all about it. When I finally thought of it I found that the queens had hatcht, and the bees were tearing away the pasteboard. Since then I have many times used pasteboard for introducing queens.

I once putja comb containing seven or eight

"Vegetable" Gardening Free.—No book ever publisht on gardening has proved to be more popular nor of more practical value than "Vegetable Gardening," written by Prof. S. B. Green, of the University of Minnesota. It is now used as a text-book in the Minnesota School of Agriculture, in the North Dakota, South Dakota, Iowa, Virginia, Massachusetts, and in the Illinois and Washington State Agricultural Colleges. We have received a copy of the special edition of this book, issued for the Ames Plow Company, which contains 240 pages, more than 120 illustrations, and treats of the cultivation of every variety of vegetable grown in America. While the regular price of the book is $1.25 (and it is well worth it), the Ames Plow Company is offering it free to every purchaser of a Matthews New Universal Seeder in any of its various styles. These Seeders are unsurpast by any implement used by the gardener and truck-grower, being adapted to all classes of work, both seeding and cultivating. They are used by Prof. Green in his field-tests. We trust that our readers will avail themselves of this opportunity to secure free so valuable a book by so capable an authority. Look up the advertisement in another column; and write them to-day, mentioning the American Bee Journal when writing.

queen-cells in with about a quart of bees, and when looking after them a few days later I discovered that four of the cells were open, but I could find only one queen. I afterward found the other three in worker-cells, apparently eating honey.

In starting a new colony I put the queen and one frame of brood into a hive, then shake the bees from the frames into the hive, and give the brood to weak colonies. Nearly all the bees given to the queen will stay with her. I also give a frame of brood with a queen-cell or a queen to the field-bees that return; in this way I have more bees, and there is no need to cover the brood to keep it from chilling. B. E. GINNER.

Placer Co., Calif.

Is it an Error?—Another Was.

On page 78, F. J. Gunzel reports 14,000 pounds of honey from 94 colonies, which, as I figure it, would be an average of about 170 pounds per colony. I wonder if it isn't a mistake—something like the one on page 74, first column, where the treacherous type makes Mr. Aikin say, "The cheapest barrel we could buy would cost us $100." J. D. GEHRING.

Douglas Co., Kans., Feb. 7.

[Of course, that barrel cost should have been $1.00. Just the omission of the decimal point—that's all.—EDITOR.]

Bee-Keeping in the Yazoo Valley.

The Yazoo Valley in Mississippi is a very unhealthy part of the country. I was sick there all summer with chills. It is also a very poor honey locality, as it rains too much. My advice to bee-keepers is to stay away from there. The great bee-keeper who was the cause of my moving there has rendered his 250 colonies into wax. About once in six or seven years they have a good honey-flow from the willows along the Mississippi River, and there are only a few places where that is plentiful. DANIEL WURTH.

Anderson Co., Tenn., Feb, 4.

Do Bees Select their Future Home Before Swarming?

While wrestling with "la grippe" I have had plenty of time to read the Bee Journal, and have noticed the discussion as to whether or not bees select their future home before swarming. I believe that first swarms always do—second swarms never. First swarms not only select their home, but if it is a tree they clean it out before taking possession.

In 1847, while hunting in the woods near Utica, N. Y., I discovered bees going in and out of a hole in a hemlock tree, and supposed I had found a bee-tree. I went with others the next morning to cut down the tree; it was a sultry morning in June, and before reaching the woods a brisk shower came up, and when we arrived there it was quite cloudy. We could not see any bees about the tree, but we decided to cut it down. As soon as it fell we rusht to the hole to stop it up so that the bees would not get out and sting us. (We knew nothing about bee-smokers in those days.) To our surprise we did not see a single bee. We sat down on the log to rest and eat our lunch; the sun came out bright and hot, and while eating and discussing, and wondering what had become of the bees, we heard a roaring sound overhead, and on looking up discovered a swarm circling where the tree formerly stood. After awhile they settled on one of the fallen branches, and we put them in a box and took them home with us. We always went then, as now, prepared to save all wild bees which we found. We cut down 13 bee-trees the past season, and left seven which we did not have time to cut.

In 1853, near this place, I found a swarm in a large oak-tree—or supposed I had. We went the next day to cut it, and found the bees working in and out. As soon as the tree fell we rusht forward to stop up the hole, as usual, but only a few were coming out, and these soon disappeared. We cut the tree open and found only a few bees—they were cleaning out the place, and getting it ready for

Three Great Potatoes.—Among the catalogs we have recently received is that of L. L. Olds, the well-known potato specialist of Clinton, Wis. Mr. Olds has been in the seed business for 14 years, and makes a speciality this year of three great potatoes: "Pat's Choice"—a splendid variety introduced for the first time last year; "Potato Pingree"—introduced in 1899, one of the very earliest potatoes that grows; and "Vigorosa"—the best yielders of all early potatoes. His catalog is handsomely illustrated from photographs, and gives the lowest prices on potatoes, seed corn, oats and other grains and grasses, besides a full line of vegetables and flower seeds. Mr. Olds' three-fold motto is "Truthfulness—Promptness—Carefulness." Do not fail to send for the catalog. It is free. Please mention the American Bee Journal when writing him.

occupancy. Many times since then I have noticed during the swarming season that hives that were crammed full of bees would suddenly be almost empty, and I would censure the one who was caring for them for not attending more closely to business; but in a day or two the hives would be full again, and a swarm would issue. I have known second swarms to go from place to place for a week before settling down to stay, and these were bees which I could positively identify. In the year 1864 a second swarm of Italians belonging to me decampt, and were found 7 miles away, one week after leaving the hive. I knew they were mine, for they were the only Italian bees in the county.

As to bees carrying both honey and pollen, we hunt bees for a living, and I find that those loaded with pollen, and, in fact, all covered over with dust, fill with honey as readily as those without pollen.

D. H. METCALF.

Calhoun Co., Mich., Feb. 8.

Bees Needing a Flight—Propolis on Sections.

Bees have been confined to the hives for quite a long time. They had some small flights in the last three or four days, but I think they are needing a general flight pretty badly. The weather is cold again to-day, and there is considerable snow on the ground.

I would like it if I could find some way to prevent the bees from depositing so much propolis on top of the sections when using section-holders. Who can tell?

EDWIN BEVINS.

Decatur Co., Iowa, Feb. 20.

Bees Wintering Nicely.

I put the bees into the cellar the latter part of November, and did not see them again until the last of January, when I found them to be as cozy and quiet as could be, and the hives were clean and all right. I took the bottoms off, and found the bees clustered below the frames. FRED C. LE FEVRE.

Adams Co., Nebr., Feb. 6.

Mild Winter—Overstocking.

Up to this time the winter has been so mild that most colonies have consumed about all their stores in brood-rearing. This seems to be the case with hybrids and crosses, especially.

The question of overstocking will be settled around this vicinity the coming season, as an ordinance prohibiting the keeping of bees within, or one-half mile from, the city limits, went into effect Jan. 1st. Several bee-keepers have moved near me lately, having about 350 colonies in all.

We have only a light flow from fruit-bloom in the spring, and the prospects for white clover are not very bright. I believe in scattering 10 cents worth of honey-secreting clovers or flowers for every colony. Sweet clover, when started, will spread with amazing rapidity.

J. C. WALLENMEYER.

Vanderburgh Co., Ind., Feb. 7.

Paper-Bag Feeders.

In reply to Mrs. Sarah J. Griffith (page 621, 1900), as to using paper-bag feeders, I will have to admit that I have never tried the scheme enough to know much about it. My first trial was a failure. I poured 5 or 6 pounds of syrup into a large paper-bag, tied the top and placed it on top of the frames in the evening. During the night the bag burst, but there was very little loss, as the hive was raised in front. I next made of light manilla paper three or four small bags that would hold about two pounds of syrup. I then oiled them, filled them, and placed them on the frames. I tried puncturing them on the sides, near the bottom, and when I lookt at them the next morning they were empty, and the bees had enlarged the holes, and were running around on the inside of the bags. That's all I know about it. They might be all right for feeding a colony that was light in stores during the summer or fall, if very heavy paper were used, and the holes made with a check-puncher. For spring feeding the nicest

way I know of is to pour the syrup in as explained by Doolittle and others.

Feeding on top of the hive is bad practice in early spring, as it is apt to let the heat out of the hive, unless it is well packt on top, and feeding at the entrance is liable to start robbing. Square boxes could be made of very heavy paper, that would be all right and cheap. I tried to make a few of them, but a man is very bungling about such work.

Bees might be fed in the spring by placing an empty super under the hive and syrup put into almost any kind of a paper-bag, and put on the bottom-board. Unfinisht sections left from the previous season are also very nice to use in stimulating a colony. WM. KERNAN.

Sullivan Co., Pa., Feb. 4.

The Swate Fields av Nu York.

There's many a field in Nu York that don't be F. L. Field's, an' many av thim do be swate honey-fields, and do be loikin swate things an' Amerikan things, an' do be loikin the Amerikan Ba Jurnal jist, an' have sinse enuf to spake gintly an' swately whin they have onything to say. The best thing Ould Doolittle cud do (as he's there on the turf) wad be to Doosomthin, an' go at wanst, froze or no froze, an' turn under that Field an' seed it to swate clover, an' let the baze swaten it up a bit wid flyin' over it an' blawing their swate breath on the face av it, jist. Now here beyant the Daddy av Wathers we do be glad to have Ould York sind the Ba Jurnal ivery wake, an' when we are flush we'ull pay the piper, and whin hard up we do be glad to have the Ba Jurnal come an' cheer an' swaten us. Should the toime cum whin we can't git swateness enuf from it to pay, we'ull pay phawt's doo, an' wid a good-by an' God-speed, quit frinds wid all the swate bhoys.

Wid good wishes—an Ould Nu Yorker.

Carroll Co., Iowa, Feb. 8. C. E. MORRIS.

Report for 1900—Rendering Beeswax.

The past season was not a very good one in this locality. I secured about 200 pounds of comb honey from 16 colonies, spring count, and increast only one. They all have plenty of stores for winter, the hives averaging over 50 pounds each when put into the cellar. What honey I had to spare I sold in the home market at 15 and 16 cents per pound.

I will give my experience in rendering wax from old combs. I pounded and rubbed the old combs into fine bits, until they lookt like pine sawdust, then I weighed the crusht combs, and found that I had 14 pounds; this I divided into two equal parts, put into bags and soakt for 48 hours, the water being changed twice, and some of the dirt was squeezed out. I put one bag into an iron kettle partly full of water, and boiled it for some time, then I took it from the stove and squeezed it. I repeated this operation three different times, until all the wax was extracted. The 7 pounds of comb made 49 ounces of clean wax, or 43¾ percent wax.

The 7 pounds put into the solar wax-extractor, and left in the hot sun at a temperature of from 80 to 90 degrees for about 10 days in June, made 15 ounces, or 13½ percent wax. The slumgum was taken out of the extractor and put into a thin cloth bag in the kettle, and treated the same as the other bag. The slumgum gave 28 ounces of wax, or 25 percent. This shows that a great deal of wax is wasted in the slumgum if it is not boiled and squeezed as it should be.

The outlook for the coming season is promising at present, as the snow will protect the white clover from winter-killing.

ARCHER L. WHITE.

Dodge Co., Wis., Feb. 12.

Care of Plants in Spring.

In the springtime when plants are making strong and rapid growth, particular attention must be given to training them. If neglected in this respect they soon get beyond control, and the only way to bring them into subjection then is by sacrificing a good deal of the growth they have made. This there is no need of doing if the training is begun in the right way, and at the right time. If a branch is inclined to outgrow others, pinch off the end of it, and keep all such branches from growing by pinching until other branches have had a chance to catch up. If a plant is not bushy and compact, make it so by pinching off the end of all its branches. Keep up this treatment until as many branches have started as you think the plant ought to have. If you desire a plant to grow in tree form train it to one stalk until it reaches the height you desire, and then nip off its top and force it to branch. Save the branches at the top to form the head of the tree. If you want a shrubbery plant begin the pinching process when it is small, thus forcing it to branch close to the 'pot. The old saying, "as the twig is bent the tree inclines," applies pertinently to the training of plants when in their early stages of development.—EBEN E. REXFORD, in the Ladies' Home Journal.

CONVENTION NOTICE.

Utah.—The Utah Bee-Keepers' Association will hold its regular spring meeting April 5th, at 10 o'clock a.m., in the City and County Building at Salt Lake City. All are cordially invited. We expect to get out a treatise or pamphlet, the object of which will be to give the best and quickest method to discover, cure, and prevent disease among the bees, and the best way to protect them from their enemies. It will also contain other matter for the benefit of the industry, including our State law. We will be pleased to receive communications from any of our bee-keepers upon any subject along the lines indicated. Address, Pres. E. S. Lovesy, Salt Lake City, Utah, or J. B. FAGG, Sec.

East Mill Creek, Utah.

HONEY AND BEESWAX

MARKET QUOTATIONS.

CHICAGO, Feb. 19.—Fancy white comb, 16c; No. 1 white comb, 14@15c; fancy amber, 12@13c; No. 1 amber, 10@11c; fancy dark, 10c; No. 1 dark, 8@9c. White extracted, 7¼@8c; amber, 6½@7¼c; dark, 6¼c. Beeswax, 28c.

R. A. BURNETT & Co.

KANSAS CITY, Feb. 19.—Fancy white comb, 16@16½c; amber, 12@13c; dark, 10c. Extracted, light, 9c; amber, 7½@8¼c. Demand fair; receipts light. Beeswax, 22@28c.

W. R. CROMWELL PRODUCE CO.,
Successors to C. C. Clemons & Co.

CINCINNATI, Feb. 9.—The market for comb honey is becoming very bare, altho the prices have not changed. Fancy white comb is still selling for 16c; no demand for darker grades. Extracted is in fair demand; dark sells for 5½c; better grades from 6½@8c; only white clover brings from 8½@9c. Beeswax, 28c.

C. H. W. WEBER.

ALBANY, N. Y., Feb. 11.—Honey market is dull and prices nominal; light stock, but the cold weather is bad for it. Comb, in good order, not candied, white, 15@16c; mixt, 13@14c; dark and buckwheat, 11@12c. Extracted, white, 7@8c; mixt, 6@6½c; dark, 5½@6c.

H. R. WRIGHT.

BUFFALO, Feb. 8.—Some more active this week, and may clean up better than expected awhile ago. Fancy 1-pound comb, 15@16c; No. 1, 14@15c; No. 2, 12@13c; dark, buckwheat, etc., 8@10c. Beeswax, 25@28c. BATTERSON & Co.

BOSTON, Feb. 8.—Fancy No. 1 white in cartons, 17c; A No. 1, 16c; No. 1, 15@16c, with a fairly good demand. Absolutely no call for dark honey this year. Extracted, white, 8@8½c; light amber, 7½@8c. Beeswax, 27c.

BLAKE, SCOTT & LEE.

NEW YORK, Feb. 19.—Comb honey is being well cleaned up on our market. The demand has lessened to quite an extent, on account, we presume, of the high prices which have been ruling. Fancy white still brings 15@16c in a small way; No. 1 white, 13@14c; amber, 11@12c; buckwheat, 10c. Extracted rather dull and not much doing. California white honey, 7¼@8c a pound; light amber, 7c; Southern, from 60 to 70c per gallon; buckwheat, 5@5½c. Beeswax steady at 28c. HILDRETH & SEGELKEN.

DETROIT, Jan. 19—Fancy white comb, 15@16c; No. 1, 13@14c; dark and amber, 12@13c Extracted, white, 7@7½c; amber and dark, 6@6½c. Beeswax, 26@27c. M. H. HUNT & SON.

SAN FRANCISCO, Feb. 6.—White comb 13@14 cents; amber, 11½@12½c; dark, 8@9c. Extracted, white, 7½@8c; light amber, 6¼@7¼c; amber, 5½@6½c. Beeswax, 26@28c.

Considering the light output of honey last spring from California apiaries, present offerings are of tolerably liberal volume and are mostly of amber grades. The market is slow at the quotations. It is reported on good authority that adulterated and imitation honey is being dealt out in considerable quantity, which accounts in a great measure for the very limited business doing in the pure article.